

**To Be Rescinded**1301:7-7-29 Cryogenic liquids.

## (A) Section FM-2901.0 General

(1) FM-2901.1 Scope: The provisions of this rule and NFPA 50, 50A and 50B listed in rule 1301:7-7-44 of the Administrative Code shall apply to the storage, use and handling of cryogenic liquids in addition to the requirements of rule 1301:7-7-23 of the Administrative Code.

(2) F-2901.2 ~~Permit~~ APPROVAL required: ~~A permit~~ APPROVAL shall be required for:

(a) The production, storage or sale of cryogenic liquids.

(b) The storage of nonflammable, nontoxic cryogenic liquids in quantities greater than 500 gallons (1.9 m<sup>3</sup>).

(c) The storage or use of more than 10 gallons (0.038 m<sup>3</sup>) of liquid oxygen, flammable cryogenic liquid or cryogenic oxidizers.

(3) F-2901.3 Use Group classification: Occupancies containing flammable and oxidizing cryogenic liquids exceeding the exempt amounts per control area indicated in Table F-2901.3 shall be classified as use group H-2.

Table F-2901.3  
Exempt amounts of flammable or oxidizing  
cryogenic liquids

Condition	Exempt amounts (Gallons) <sup>a</sup>
Inside storage Unprotected by sprinklers	45
In sprinklered structure	90
Outside storage	90

Note a. 1 gallon = 0.00379 m<sup>3</sup>.

## (B) Section FM-2902.0 Definitions

FM-2902.1 General: The following words and terms shall, for the purposes of this rule and as stated elsewhere in this code, have the meanings shown herein.

Cryogenic liquid: Any liquid that has a boiling point below -200 degrees F. (-129 degrees C.).

Cryogenic vessel: Any pressure vessel, low-pressure tank or atmospheric tank on which venting,

insulation, refrigeration or a combination of these are utilized to maintain both the operating pressure and the contents in a liquid phase.

Flammable cryogenic liquid: Cryogenic liquids which are flammable in the vapor state.

(C) Section FM-2903.0 Retroactive requirements

(1) F-2903.1 General: The provisions of this section shall apply to all new and existing structures occupied for the storage of cryogenic liquids exceeding the exempt amounts per control area indicated in Table F-2901.3, unless otherwise specified.

(2) FM-2903.2 Container and equipment: All containers, including piping, valves and pressure relief devices, shall be located, designed, constructed and maintained in accordance with the mechanical code and NFPA 50, 50B and 59A listed in rule 1301:7-7-44 of the Administrative Code.

F-2903.2.1 Protection: All containers, valves and piping shall be located so such containers, valves and piping are capable of ready access for inspection and repair and shall be protected against tampering.

(3) FM-2903.3 Inside storage: Cryogenic liquids in individual cylinders, containers or tanks each exceeding a water capacity of 1,200 pounds (545 kg) or 140 gallons (0.53 m<sup>3</sup>) shall not be stored inside of buildings. Indoor storage of flammable or oxidizing cryogenic liquids shall comply with paragraphs (C)(3)(a)(FM-2903.3.1) and (C)(3)(b)(FM-2903.3.2) of this rule.

(a) FM-2903.3.1 Explosion control: Explosion venting or explosion suppression shall be provided in inside storage areas of flammable cryogenic liquids in accordance with the building code listed in rule 1301:7-7-44 of the Administrative Code.

(b) FM-2903.3.2 Limit controls: Pressure controls shall be provided in accordance with paragraph (P)(4)(F-2316.4) of rule 1301:7-7-23 of the Administrative Code.

(D) Section FM-2904.0 Fire safety requirements

(1) F-2904.1 General: All storage of cryogenic liquids in any quantity shall comply with this section.

(2) F-2904.2 Location: Locations for dispensing of flammable cryogenic liquids, liquefied oxygen or liquid oxidizers shall be approved.

(3) FM-2904.3 Identification: ~~Warning labels~~ WARNINGS and signs shall be posted on all containers and equipment in accordance with paragraph (H)(2)(FM-2308.2) of rule 1301:7-7-23 of the Administrative Code.



Effective:

R.C. 119.032 review dates: 11/23/2004

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Certification

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Date

Promulgated Under: 119.03  
Statutory Authority: 3737.82, 3737.86  
Rule Amplifies: N/A  
Prior Effective Dates: 7/1/79, 6/1/85, 6/15/92, 7/1/93, 9/1/95, 3/30/98